

AMENDMENTS TO THE CLAIMS

Listing of the claims:

1. (Currently Amended) A method of reducing both NO_x and particulates in the exhaust of hydrocarbon-burning, internal combustion engines, comprising:

providing in the exhaust stream of an internal combustion engine at least one porous, interdigitated ceramic filter including a plurality of inlet channels and a plurality of outlet channels contiguous with said inlet channels, and having NO_x adsorbent material and NO_x reduction catalyst disposed on or in at least one of (a) on the surfaces of said channels or (b) within the pores of said filter or (c) within the material of which said filter is composed; and

alternatively providing to each of said inlet channels syngas and said exhaust in an interleaved fashion, thereby to regenerate said NO_x adsorbing material and to catalytically burn particulates trapped in said filter.

2. (Canceled)

3. (Canceled)

4. (Canceled)

5. (Canceled)

6. (Canceled)

7. (Canceled)

8. (New) The method of claim 1, wherein the NO_x adsorbent material comprises barium carbonate.

9. (New) The method of claim 1, wherein the NO_x reduction catalyst comprises platinum.

10. (New) The method of claim 1, wherein both syngas and said exhaust gas are simultaneously provided to said filter.

11. (New) The method of claim 10, wherein syngas is provided to between 0.5% and 50% of said inlet channels.